

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018532**Date Inspected:** 10-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Wang li yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY- 3

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 07713.

**Magnetic Particle Testing (MT)**

This QA performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA generated MT report for this date. The members are identified as OBG Sub assembly weld Components. Total number of welds MT Tested: 8 No's. The weld designations are review as follows:

1. SA3340-001-001~004
2. SA3324-001-072,073
3. SA3325-001-072,073

This QA Inspector Randomly observed the following work in progress:

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Shielded Metal Arc Welding (SMAW) welding of weld joint SP3121-001-070,071. Welder is identified as 053753. ZPMC Quality Control (QC) is identified as Mr. Cui jun jie. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2113.

SMAW welding of weld joint SP3121-001-060,061. Welder is identified as 057795. ZPMC Quality Control (QC) is identified as Mr. Cui jun jie. The welding variables appeared to comply with the Applicable WPS: WPS-B-P-2113.

SMAW Repair welding of weld joint LD3041-001-413. Welder is identified as 058102. ZPMC Quality Control (QC) is identified as Mr. Zhang yaxu. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-1G (1F)-FCM-Repair. The repair welding was being performed as per the Welding Repair Report (WRR) No: B-WR18661. This weld was rejected by ZPMC UT Technicians and recorded on UT report No: B787-UT-17766. Refer the attached photos for reference.

SMAW Repair welding of Grillage plate weld joint SA7512-001-030. Welder is identified as 066236. ZPMC Quality Control (QC) is identified as Mr. Li jia. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-3G (3F)-FCM-Repair. The repair welding was being performed as per the Caltrans Engineer approved Critical Welding Repair Report (CWR) No: B-CWR2349. This weld was rejected by ZPMC UT Technicians and recorded on UT report No: B787-UT-17609R2. Refer the attached photos for reference.

SMAW Repair welding of Grillage plate weld joint SA7512-001-031. Welder is identified as 067707. ZPMC Quality Control (QC) is identified as Mr. Li jia. The welding variables appeared to comply with the Applicable WPS: WPS-345-SMAW-3G (3F)-FCM-Repair. The repair welding was being performed as per the Caltrans Engineer approved Critical Welding Repair Report (CWR) No: B-CWR2352. This weld was rejected by ZPMC UT Technicians and recorded on UT report No: B787-UT-17609R2. Refer the attached photos for reference.

### BAY- 2

ZPMC personnel heat straightening OBG member identified as FB3343A. Distortion appeared to be caused by welding of the material. ZPMC Quality Control (QC) inspector identified as Mr. Wang li yang was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) HSR1 (B)-9941.

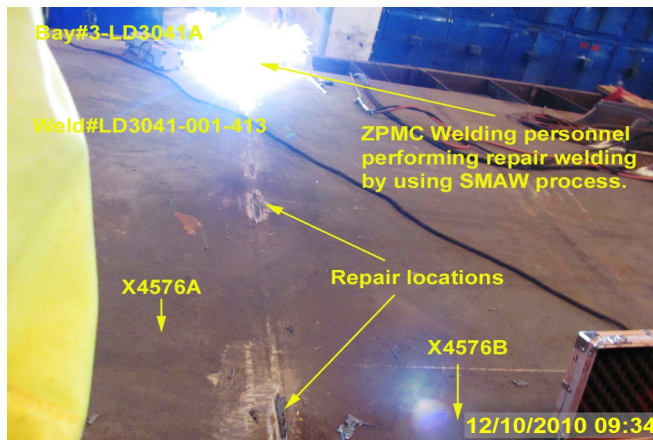
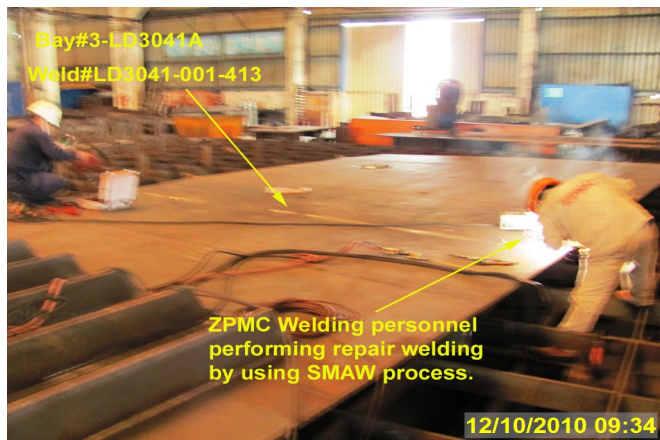
American Bridge/Fluor QA Inspectors performing MT for the welds located on the anchor plate identified as AP3032A.

This QA Inspector performed photo documentation on Lift 14 Hinge plates are identified as FB3343A, located in sub assembly bay 2. These photos have been sent to QA lead Inspector and Structural Material Representative (SMR) by mail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhu,Surendra

Quality Assurance Inspector

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**Reviewed By:** Hall,Steven

QA Reviewer